

J. Lundgren

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7 pfanner 11.27.00
Page 1 of 7
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2000

1631

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/535,088

DATE: 11/03/2000
TIME: 13:20:58

Input Set : A:\zfp-us.app
Output Set: N:\CRF3\11032000\I535088.raw

ENTERED
see p.5

3 <110> APPLICANT: EISENBERG, STEPHEN P.
4 CASE, CASEY C.
5 COX III, GEORGE N.
6 JAMIESON, ANDREW
7 REBAR, EDWARD J.
8 LUI, QIANG
10 <120> TITLE OF INVENTION: ZINC FINGER PROTEIN COMPOSITIONS
12 <130> FILE REFERENCE: 019496-003020US
14 <140> CURRENT APPLICATION NUMBER: 09/535,088.
15 <141> CURRENT FILING DATE: 2000-03-23
17 <150> PRIOR APPLICATION NUMBER: 60/126,238
18 <151> PRIOR FILING DATE: 1999-03-24
20 <150> PRIOR APPLICATION NUMBER: 60/126,239
21 <151> PRIOR FILING DATE: 1999-03-24
23 <150> PRIOR APPLICATION NUMBER: 60/146,596
24 <151> PRIOR FILING DATE: 1999-07-30
26 <150> PRIOR APPLICATION NUMBER: 60/146,615
27 <151> PRIOR FILING DATE: 1999-07-30
29 <160> NUMBER OF SEQ ID NOS: 4054
31 <170> SOFTWARE: PatentIn Ver. 2.1
33 <210> SEQ ID NO: 1
34 <211> LENGTH: 25
35 <212> TYPE: PRT
36 <213> ORGANISM: Artificial Sequence
38 <220> FEATURE:
39 <223> OTHER INFORMATION: Description of Artificial Sequence: exemplary motif
41 <220> FEATURE:
42 <221> NAME/KEY: MOD_RES
43 <222> LOCATION: (2)..(5)
44 <223> OTHER INFORMATION: this region may encompass two to four residues
45 consisting of any amino acid
47 <220> FEATURE:
48 <221> NAME/KEY: MOD_RES
49 <222> LOCATION: (7)..(18)
50 <223> OTHER INFORMATION: any amino acid
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53 <221> NAME/KEY: MOD_RES
54 <222> LOCATION: (20)..(24)
55 <223> OTHER INFORMATION: this region may encompass three to five residues
56 consisting of any amino acid
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W--> 59 Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
60 1 5 10 15
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63 20 25
66 <210> SEQ ID NO: 2
67 <211> LENGTH: 5

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68 <212> TYPE: PRT
69 <213> ORGANISM: Artificial Sequence
71 <220> FEATURE:
72 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
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80 <211> LENGTH: 5
81 <212> TYPE: PRT
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
87 <400> SEQUENCE: 3
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89   1               5
92 <210> SEQ ID NO: 4
93 <211> LENGTH: 8
94 <212> TYPE: PRT
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
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102   1               5
105 <210> SEQ ID NO: 5
106 <211> LENGTH: 9
107 <212> TYPE: PRT
108 <213> ORGANISM: Artificial Sequence
110 <220> FEATURE:
111 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
113 <400> SEQUENCE: 5
114 Leu Arg Gln Arg Asp Gly Glu Arg Pro
115   1               5
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119 <211> LENGTH: 12
120 <212> TYPE: PRT
121 <213> ORGANISM: Artificial Sequence
123 <220> FEATURE:
124 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker
126 <400> SEQUENCE: 6
127 Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro
128   1               5               10
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132 <211> LENGTH: 16
133 <212> TYPE: PRT
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Description of Artificial Sequence: peptide linker

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Input Set : A:\zfp-us.app
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140 Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
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145 <211> LENGTH: 25
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147 <213> ORGANISM: Artificial Sequence
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154 <222> LOCATION: (2)..(5)
155 <223> OTHER INFORMATION: this region may encompass two to four residues
156     consisting of any amino acid
158 <220> FEATURE:
159 <221> NAME/KEY: MOD_RES
160 <222> LOCATION: (7)..(18) /
161 <223> OTHER INFORMATION: any amino acid
163 <220> FEATURE:
164 <221> NAME/KEY: MOD_RES
165 <222> LOCATION: (20)..(24)
166 <223> OTHER INFORMATION: this region may encompass three to five residues
167     consisting of any amino acid
169 <400> SEQUENCE: 8
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171   1             5             10             15
W--> 173 Xaa Xaa His Xaa Xaa Xaa Xaa Xaa His
174           20           25
177 <210> SEQ ID NO: 9
178 <211> LENGTH: 30
179 <212> TYPE: PRT
180 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Description of Artificial Sequence: mouse transcription
184     factor Zif268
186 <400> SEQUENCE: 9
187 Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser Asp
188   1             5             10             15
190 Glu Leu Thr Arg His Ile Arg Ile His Thr Gly Gln Lys Pro
191           20           25           30
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196 <212> TYPE: PRT
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: Description of Artificial Sequence: mouse transcription
201     factor Zif268
203 <400> SEQUENCE: 10
204 Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His Leu

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207 Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro
208              20              25
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214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Description of Artificial Sequence: mouse transcription
218      factor Zif268
220 <400> SEQUENCE: 11
221 Phe Ala Cys Asp Ile Cys Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg
222      1              5              10              15
224 Lys Arg His Thr Lys Ile His Leu Arg Gln Lys
225              20              25
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230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence: target DNA
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237 gcgtgggacg
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240 <210> SEQ ID NO: 13
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242 <212> TYPE: PRT
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245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: Sp-1
247      transcription factor
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250 Pro Gly Lys Lys Lys Gln His Ile Cys His Ile Gln Gly Cys Gly Lys
251      1              5              10              15
253 Val Tyr Gly Lys Thr Ser His Leu Arg Ala His Leu Arg Trp His Thr
254              20              25              30
256 Gly Glu Arg Pro Phe Met Cys Thr Trp Ser Tyr Cys Gly Lys Arg Phe
257              35              40              45
259 Thr Arg Ser Asp Glu Leu Gln Arg His Lys Arg Thr His Thr Gly Glu
260              50              55              60
262 Lys Lys Phe Ala Cys Pro Glu Cys Pro Lys Arg Phe Met Arg Ser Asp
263      65              70              75              80
265 His Leu Ser Lys His Ile Lys Thr His Gln Asn Lys Lys Gly
266              85              90
269 <210> SEQ ID NO: 14
270 <211> LENGTH: 9
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Description of Artificial Sequence: target DNA

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 PATENT APPLICATION: US/09/535,088 TIME: 13:20:58

Input Set : A:\zfp-us.app
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278 ggggcgggg
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287 <223> OTHER INFORMATION: Description of Artificial Sequence: Sp-1 consensus
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290 <400> SEQUENCE: 15
291 Met Glu Lys Leu Arg Asn Gly Ser Gly Asp Pro Gly Lys Lys Lys Gln
292   1             5             10             15
294 His Ala Cys Pro Glu Cys Gly Lys Ser Phe Ser Lys Ser Ser His Leu
295             20             25             30
297 Arg Ala His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Lys Cys Pro
298             35             40             45
300 Glu Cys Gly Lys Ser Phe Ser Arg Ser Asp Glu Leu Gln Arg His Gln
301             50             55             60
303 Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys
304             65             70             75             80
306 Ser Phe Ser Arg Ser Asp His Leu Ser Lys His Gln Arg Thr His Gln
307             85             90             95
309 Asn Lys Lys Gly
310             100
313 <210> SEQ ID NO: 16
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318 <220> FEATURE:
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322 <400> SEQUENCE: 16
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326 <210> SEQ ID NO: 17
327 <211> LENGTH: 9
328 <212> TYPE: DNA
329 <213> ORGANISM: Artificial Sequence
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332 <223> OTHER INFORMATION: Description of Artificial Sequence: example target
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341 <212> TYPE: DNA
342 <213> ORGANISM: Artificial Sequence
344 <220> FEATURE:
345 <223> OTHER INFORMATION: Description of Artificial Sequence: example target
346     DNA

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

DATE: 11/03/2000

PATENT APPLICATION: US/09/535,088

TIME: 13:20:59

Input Set : A:\zfp-us.app

Output Set: N:\CRF3\11032000\I535088.raw

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L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:52293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4013
L:52316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4014
L:52339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4015
L:52362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4016
L:52385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4017
L:52408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4018
L:52431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4019
L:52454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4020
L:52477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4021
L:52500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4022
L:52523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4023
L:52546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4024
L:52569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4025
L:52592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4026
L:52615 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4027
L:52638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4028
L:52661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4029
L:52684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4030
L:52707 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4031
L:52730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4032
L:52753 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4033
L:52776 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4034
L:52799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4035
L:52822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4036
L:52845 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4037
L:52868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4038
L:52891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4039
L:52914 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4040
L:52937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4041
L:52960 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4042
L:52983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4043
L:53006 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4044
L:53029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4045
L:53052 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4046
L:53075 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4047
L:53098 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4048
L:53121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4049
L:53144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4050
L:53167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4051
L:53190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4052
L:53213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4053
L:53236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4054